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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/699,577	10/31/2003	Robert Hale Grant	233-605-USP	1563
48929	7590	04/23/2010	EXAMINER	
HENSLEY KIM & HOLZER, LLC 1660 LINCOLN STREET SUITE 3000 DENVER, CO 80264			FORD, GRANT M	
			ART UNIT	PAPER NUMBER
			2442	
			NOTIFICATION DATE	DELIVERY MODE
			04/23/2010	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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<b>Office Action Summary</b>	<b>Application No.</b> 10/699,577	<b>Applicant(s)</b> GRANT ET AL.	
	<b>Examiner</b> GRANT FORD	<b>Art Unit</b> 2442	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 04 January 2010.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 2-5,9,11-14,18,23-25 and 29-35 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2-5,9,11-14,18,23-25 and 29-35 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 October 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)         | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Status of the Claims***

1. This communication is responsive to the amendments and remarks received 1/4/2010.

Claims 2 and 9 have been amended.

Claims 7, 16, 20-22, and 26-28 have been canceled.

Claims 32-35 have been newly added.

Claims 2-5, 9, 11-14, 18, 23-25, and 29-35 are pending further examination.

### ***Drawings***

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the wherein the second module ceases implementing said at least one service in favor of allowing the second network to provide the at least one service after said third module determines that the at least one service is implemented in the second network of independent claims 2 and 34, and ceasing the implementation of the at least one service in the gateway in favor of allowing the second network to provide the at least one service of independent claims 11 and 35 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended

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replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

The Examiner notes that 37 CFR 1.83(a) requires that “*The drawing in a nonprovisional application must show every feature of the invention specified in the claims. However, conventional features disclosed in the description and claims, where their detailed illustration is not essential for a proper understanding of the invention, should be illustrated in the drawing in the form of a graphical drawing symbol or a labeled representation...*” In the instant case, at least the features of: wherein the second module ceases implementing said at least one service in favor of allowing the second network to provide the at least one service after said third module determines that the at least one service is implemented in the second network of independent claims 2 and 34, and ceasing the implementation of the at least one service in the gateway in favor of allowing the second network to provide the at least one service of independent claims 11 and 35, are not shown in the drawings.

***Claim Rejections - 35 USC § 101***

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. As per claims 34-35, the claimed invention is directed to non-statutory subject matter.

5. As per claim 34, the claim is rejected under 35 USC 101 because the claimed invention is directed to non-statutory subject matter. The "gateway" claim is not to a process, machine, manufacture, or composition of matter. The claimed "module" elements are non-structural limitations, and in light of the specification these are disclosed as being potentially software (e.g., at Page 6 lines 21-24 which states purely software implementations). Therefore, the claimed subject matter as a whole fails to fall within the definition of a process, machine, manufacture, or composition of matter, patentable eligible category subject matter.

6. As per claim 35, the claim is rejected under 35 USC 101 as not falling within one of the four categories of invention. While the claims recite a series of steps or acts to be performed, a statutory "process" under 35 USC 101 must (1) be tied to a particular machine, or (2) transform underlying subject matter (such as an article or material) to a different state or thing. See page 10 of *In Re Bilski* 88 USPQ2d 1385. The instant claims are neither positively tied to a particular machine that accomplishes the claimed method steps nor transform underlying subject matter, and therefore do not qualify as a statutory process. The method including steps of identifying, implementing, determining,

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and ceasing is broad enough that the claim could be completely performed mentally, verbally, or without a machine nor is any transformation apparent. Specifically, the claimed method steps are not tied to particular machine and/or fail to transform underlying subject matter to a different state or thing. As such, the claim is directed to non-statutory subject matter.

***Claim Rejections - 35 USC § 112***

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claim 35 recites the limitation "the gateway". There is insufficient antecedent basis for this limitation in the claim. For purposes of examination, the examiner has examined the phrase "the gateway" as reciting "a gateway".

***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 2-5, 11-14, and 32-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Czeiger et al. (US 6,683,883), hereinafter referred to as Czeiger, in view of Liao et al. (US 2004/0024905), hereinafter referred to as Liao, further in view of Alonso et al. (US 2003/0142628), hereinafter referred to as Alonso.

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a. As per claims 2 and 11, Czeiger discloses a gateway comprising:

a first port for coupling to a first network and a second port for coupling to a second network (Figures 1 - see Gateway 12 interfaces to TCP/IP network 16 and FC network 32, Col 5 lines 21-26); and

a second module coupled to said first and second ports that processes packets received by and to be output from said first and second ports to implement said at least one service on behalf of the second network (Col 2 lines 10-33, Col. 4 lines 15-19 – see iSCSI mapping to FC network by gateway 12, Col. 5 lines 26-39 – see Gateway 12 utilizing memory 20 and CPU 21 for implementing the claimed module which maps between iSCSI/FC resource services). However, Czeiger fails to explicitly disclose wherein the gateway implements modules which determine when the at least one service is implemented in the second network or ceasing provision of at least one service in favor of allowing the second network to provide the at least one service.

Liao teaches a first module connected to first and second ports which processes packets received by and to be output from said first and second ports to identify at least one service provided by the first network that is not provided by the second network (Fig. 1, Para. 0040—see IB/FC APIs at the gateway, wherein the gateway creates and maintains the VIBA database for virtual elements on the IB and FC networks), a third module connected to first and second ports that processes packets received by and to be output from said first and second ports to determine when the at least one service is implemented in the second network (Fig. 1, Para. 0040 – see maintaining VIBA database tracking IB/FC resource services, 0042, 0051). It would have

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been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the use of a gateway determining when at least one service is provided in a first and a second network with the prior art of Czeiger. One of ordinary skill in the art would have done so for the purpose of permitting a gateway to interconnect a first and second network direct communication where the first and second networks utilize different services such as discovery and management protocols to provide a protocol-transparent interface between Infiniband and Fibre Channel network devices (Para. 0006-0008, 0010). However, the prior art combination of Czeiger-Liao fails to explicitly teach wherein a gateway ceases implementing said at least one service in favor of allowing the second network to provide the at least one service after a determination that the at least one service is implemented in the second network.

Alonso teaches wherein a gateway ceases implementing said at least one service in favor of allowing the second network to provide the at least one service after a determination that the at least one service is implemented in the second network (Para. 0019 – see updating fabric map based upon updated management data wherein the management data is used to determine which network will implement a given service (e.g., routing in Alonso), Para. 0043 – see addition of resources in a switching fabric, Para. 0046 – see cost management to update which switching fabric provides a specified service in order to identify changes which might improve the switching fabric (e.g., when resources are added to a second network, a service originally implemented by a first network will be changed to be implemented by a second network which was updated with the newly added resources via management data notification)). It would



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have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the use of ceasing implementation of a service at a first network in favor of allowing a second network to provide the service with the prior art of Czeiger and Liao. One of ordinary skill in the art would have done so for the purpose of providing capabilities for identifying changes in attached switching fabrics, and identifying changes that might improve the switching fabrics (Para. 0046).

b. As per claims 3 and 12, Czeiger additionally discloses wherein at least one of the networks comprises a fibre channel network (Col 2 lines 47-57).

c. As per claims 4 and 13 Czeiger additionally discloses wherein at least one of the networks comprises an Internet Protocol network (Col 2 lines 49-57).

d. As per claims 5 and 14, Czeiger additionally discloses wherein at least one of the first and second networks comprises a SAN (Col 1 line 66 through Col. 2 line 9 – see iSCSI and FC protocols).

e. As per claims 32-33, Czeiger, Liao, and Alonso teach the invention substantially as claimed above. However, the prior art of Czeiger fails to explicitly disclose wherein said at least one service comprises a discovery service.

Liao teaches wherein at least one service comprises a discovery service (Para. 0039, 0087). It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the use of a discovery service with the prior art of Czeiger. One of ordinary skill in the art would have done so for the purpose of permitting a gateway to interconnect a first and second network direct communication

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through the use of a discovery service to provide a protocol-transparent interface between Infiniband and Fibre Channel network devices (Para. 0006-0008, 0010).

f. As per claim 34, the claim recites a subset of claim language as claimed in independent claim 2 and is thus rejected under the same rationale as outlined with respect to independent claim 2 above.

g. As per claim 35, the claim recites a subset of claim language as claimed in independent claim 11 and is thus rejected under the same rationale as outlined with respect to independent claim 11 above.

11. Claims 9, 18, 23-25, and 29-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Czeiger in view of Liao and further in view of Cho et al. (*A Method for Accommodating Storage Service in Optical Access System*), hereinafter referred to as Cho.

a. As per claims 9 and 18, Czeiger discloses a gateway comprising:  
a first port for coupling to a first network and a second port for coupling to a second network (Figures 1-4, Col 5 lines 21-26); and  
a second module coupled to said first and second ports that processes packets received by and to be output from said first and second ports to implement said at least one service on behalf of the second network (Col 2 lines 10-33, Col. 4 lines 15-19 – see iSCSI mapping to FC network by gateway 12, Col. 5 lines 26-39 – see Gateway 12 utilizing memory 20 and CPU 21 for implementing the claimed module

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which maps between iSCSI/FC resource services). However, Czeiger fails to explicitly disclose wherein the gateway implements processes which determine when the at least one service is implemented in the second network or wherein the at least one service comprises a security server implemented on behalf of the second network.

Liao teaches a first module connected to first and second ports which processes packets received by and to be output from said first and second ports to identify at least one service provided by the first network that is not provided by the second network (Fig. 1, Para. 0040—see IB/FC APIs at the gateway, wherein the gateway creates and maintains the VIBA database for virtual elements on the IB and FC networks). It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the use of determining when the service is implemented in the second network as well as a discovery service and the processes implemented within the gateway comprising a discovery service implemented on behalf of the second network with the iSCSI-FCP gateway of Czeiger. One of ordinary skill in the art would have done so for the purpose of permitting a gateway to interconnect a first and second network direct communication where the first and second networks utilize different services such as discovery and management protocols to provide a protocol-transparent interface between Infiniband and Fibre Channel network devices (Para. 0006-0008, 0010). However, the prior art combination of Czeiger-Liao fails to explicitly teach wherein the at least one service comprises a security service implemented on behalf of the second network.

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Cho teaches a iSCSI-Fibre Channel interconnection gateway including a Security Processor Module for providing IPSec security processing for iSCSI data in IP network environments (Fig. 1 and 3, Page 661, Page 662 lines 1-7). It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the use of IPSec processing in network interconnection gateways with the prior art of Czeiger and Liao. One of ordinary skill in the art would have done so for the purpose of providing proper security and authentication data associated with a connection (Page 661).

b. As per claims 23 and 29, Czeiger additionally discloses wherein at least one of the networks comprises a fibre channel network (Col 2 lines 47-57).

c. As per claims 24 and 30, Czeiger additionally discloses wherein at least one of the networks comprises an Internet Protocol network (Col 2 lines 49-57).

d. As per claims 25 and 31, Czeiger additionally discloses wherein at least one of the first and second networks comprises a SAN (Col 1 line 66 through Col. 2 line 9 – see iSCSI and FC protocols).

### ***Response to Arguments***

12. Applicant's arguments filed 1/4/2010, with respect to the prior art of Liao failing to explicitly teach that a second module ceases implementing said at least one service in favor of allowing the second network to provide the at least one service after said third module determines that the at least one service is implemented in the second network,

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as claimed in independent claims 2 and 11, have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Alonso, as outlined above.

With respect to the prior art of Cho, Applicant argued that the security system in the Cho reference is implemented in a sender device and a destination device and is not implemented within a network. However, the prior art of Cho teaches the use of a security module at an iSCSI gateway which interconnects GbE and SAN/FC fabrics (see Figures 1 and 3, Section III.A). As such, the iSCSI gateway of Cho is implemented within a network. For at least this reason, Applicant's argument is not found to be persuasive.

### ***Conclusion***

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

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shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to GRANT FORD whose telephone number is (571)272-8630. The examiner can normally be reached on 8-5:30 Mon-Thurs alternating Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Philip Lee can be reached on (571)272-3967. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/G. F./

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Examiner, Art Unit 2442

/Philip C Lee/

Primary Examiner, Art Unit 2448